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EDITORIAL

SPANISH INFLUENZA.

The cyclic spread of influenza appears to have reached the United States, and the pandemic is well under way. Hardly any section has escaped it, and the army reservations and naval stations have especially developed the disease. Like other wholesale epidemics of the epizootic, the present one has developed rapidly and promises further spread before it declines. The mortality appears higher than the customary winter grippe, and the present outbreak more nearly resembles that which covered the United States in 1890 and 1891.

The rapid onset, early temperature exacerbation and the pneumonic complications are characteristic. The avoidance of gatherings and of public exposure are important, but, of course, the individual sick or just recovering is always the object of danger in the spread of the disease. At the first suggestion of headache, coryza, cough, sneezing and other catarrhal symptoms, the victim should go home and to bed.

The health authorities are active in distributing information as to how to prevent this disease and how to take care of those sick with it. The prompt quarantine of those sick with influenza will save others, and this is practiced by the military authorities. As the disease usually runs its course in a few days, unless there are other complications, the present epidemic ought to have a rapid course and exit.

A profession already overtaxed will have the burden of the strain, but theirs is the duty to educate the public to the way of shortening the epidemic.

THE STUDENTS' ARMY TRAINING CORPS.

On October 1, some five hundred universities and colleges officially inaugurated the operation of the Students Army Training Corps, through which about 150,000 young men became privates in the army of the United States under exceptional conditions.

While the continuance of a college education to its completion may not be possible for many of these students, all of them will be thoroughly trained as soldiers while they are in college. Those whose courses may be shortened will have the gratification of going into further training as officers, if their first trial in college is satisfactory.

Students of medicine are particularly fortunate. A wise government has recognized the necessity of encouraging qualified students in the pursuit of medical study and it has provided the way under conditions which to the student should appear as a dream come true. The most expensive of all professional schools, the medical course, is now offered at no cost to the student, except for his books and instruments, and at the same time he is housed, fed and has the pay of a private. The curriculum of the medical course is to be maintained, with a proper provision for allowances for the military phase.

Not only are the material sides of the question of medical education solved, but there is offered as a reward for the industrious a commission in the medical corps at the end of the training.

Among the many activities which the preparation for war has evolved none will have a more far reaching influence than the organization of the Students Army Training Corps. Universal military training may come about through legislative act, but with the leading colleges in every state engaged in the active training of soldier officers, the boy on the way to manhood will see the process and will demand the right to anticipate as his right, what the college boy now receives by privilege, under a national legislative act.

The end results of the Students Army Training Corps will be many, but even if the war is over before many of these young men are in the field of action, they will have trained for that action and the training will be as potent in the field of civil life or in other human endeavors. Malthusian though the thought may be, the process which has followed every great struggle has brought its blessings in refinement of purpose, closer domestic virtues, greater community achievement and a concomitant return to the integral spiritual and moral life.

The American soldier or sailor in this day has his motives revealed to him, where his instincts have not produced them, and his plane of thought is ethically higher than has been the case in military organization in this country hitherto. It is right to expect that with a superlative training added, our college boy soldiers and sailors will bring up the average in the final count.

SPECIAL NOTICE.

The attention of the members of the American Society of Tropical Medicine is called to the indefinite postponement of the annual meeting fixed for November 11, 1918.

This step was deemed necessary by the president in view of the health conditions prevailing.

(Signed) SIDNEY K. SIMON, M.D.,
Acting Secretary.

ORIGINAL ARTICLES

(No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editors on the tenth day of the month preceding that in which they are expected to appear. Reprints may be had at reasonable rates if a WRITTEN order for the same accompany the paper.)

SOME SPANISH VIEWS ON SPANISH INFLUENZA.*

Translated for the NEW ORLEANS MEDICAL AND SURGICAL JOURNAL by
LODILLA AMBROSE, Ph. M., New Orleans.

(PAGES OF ORIGINAL ARTICLES ARE GIVEN IN BRACKETS.)

[401] CARLAN (25 May, 1918).—Simultaneously with the enormous influx of strangers who have visited Madrid during these last days—although we do not attribute its presence to this influx—an epidemic afflicts Madrid which is important for the number of cases, but need not cause pre-occupation at present, in view of the mildness of the cases.

The disease has the characteristics peculiar to all the catarrhal epidemics which have been observed historically by the names of influenza, of grippe, or of *trancazo* [Spanish word, meaning literally a blow with a bar]. The only strange thing up to the present time is this, that it has appeared in Madrid without etiological antecedents connected with other populations; however, it is known that these diseases are usually true pandemics, just as they have always been designated.

There is no reason for enumerating the number of opinions, some well aimed and discreet, others capricious and fantastic, which have circulated in these days. As far as we are concerned, we do not believe that there is any motive for great disquiet; but neither would it be prudent to forget that grippal epidemics are characterized by sudden, benign and generalized onset, and that then they are accentuated in gravity and in persistence as time goes on.

*25 May, 1918.—Carlán, Decio. Las epidemias de las ferias del Santo. *Siglo médico*, Madrid, 1918, lxv, 401.

1 June, 1918.—Evolución de la epidemia [editorial]. *Siglo médico*, Madrid, 1918, lxv, 422.

Cortezo, Carlos María [president of the Real Academia Nacional de Medicina, member of the Real Academia de la Lengua]. ¿Influenza ó dengue? *Siglo médico*, Madrid, 1918, lxv, 422-426. [Reprinted from *Siglo médico*, Madrid, 15 December, 1889, 786-790.]

8 June, 1918.—Carlán, Decio. La cuestión del día. *Siglo médico*, Madrid, 1918, lxv, 441-442.

15 June, 1918.—Lasbennes, Luis. Contribución demográfica al estudio de la actual epidemia en Madrid. *Siglo médico*, Madrid, 1918, lxv, 466-468.

29 June, 1918.—[Received by the John Crerar Library, Chicago, 10 August 1918.]
Estado sanitario de Madrid. *Siglo médico*, Madrid, 1918, lxv, 518.

One is reminded of the events of the month of December, 1889, and January, 1890. If the disease continues, we shall publish one of the works which saw the light in *El Siglo Médico* at that time, and well merits reprinting, for it seems written for to-day.

[422] EDITORIAL (1 June, 1918).—As the days pass, apparent confusion regarding the onset and progress of the grippal epidemic prevalent in Madrid for two weeks is being cleared up.

The first thing which appeared strange was its exclusive localization in this capital, inasmuch as epidemics of this class tend to extension among many peoples and to different countries, even to the point of being considered pandemics. Be that as it may, in accordance with data which we consider exact, there are already found affected Barcelona, Sevilla, Valencia and other places.

As for foreign countries, in Paris it seems that numerous cases have occurred and are still occurring, and some of them are grave; in England also various populations have been invaded.

(For America, the cases at Sing Sing and at the Ford factory are quoted from the *Medical Record,* March 30 and April 13.)

Evidently, then, the pandemic character is not lacking; there remains, however, the publishing of the bacteriological confirmation. An observation on this point occurs to us, which we will report for what it is worth.

It is to-day considered certain that the bacillus pathogenic for grippe is the one called Pfeiffer's, from the name of its discoverer; but it is not to be forgotten that this discovery was not made at the time of a well-marked pandemic like that of the years 1889-90, but that it was announced as proved some years after from the bronchial secretions of cases diagnosed as grippe. An author as well known and respected in Germany and in Spain as Strümpell does not consider it certain that the pathogenic organism of this disease is known, although he mentions the works of Pfeiffer.

The following may be the fact, though we do not venture to assert it positively, that the organism considered as ultimately pathogenic for grippe was this, solely for some of its relatively sporadic forms, just as happens with certain intestinal infections, which present syndromes very similar and almost equivalent, but undoubtedly have as their infections bacilli morphologically and biologically distinct.

On this point the bacteriologists have the floor, and it is to be hoped that they will concern themselves with the question not only

with the skill which we recognize with pleasure in many of them, but also with that serenity of judgment and that impartiality which are to be desired in all, in order that they may not darken their counsels by prejudices and routines—which exist even in laboratories. P.

CORTEZO (1 June, 1918).—[*El Siglo Médico* reprints the following article, written by Cortezo at the time of the epidemic of influenza in 1889-90, and in a note compares the present epidemic with that one.]

[422] The sinister genius of epidemics lets loose its malevolent ministries and its agents of desolation and death not alone when it attacks us, but modern life has afforded pernicious supernumeraries who, under the name of amateurs, intelligent persons, correspondents and journalists, invade the organs of publicity on the appearance of every epidemic. And sometimes, in fulfillment of professional duty as viewed by journalists, and at other times because of an itch for the exhibition of originality (as happens with improvised epidemiologists), there is established a veritable boxing match of publicity in which exactness is not always conspicuous, and by means of which the minds of the patient public are infected with fear and trembling.

This event—of which there was a good specimen in the communications with which hygienists *d'occasion* filled the newspapers in the last cholera epidemic with their works on hygiene, mycology and therapeutics, with their infallible remedies, their immortal microbes and their quite new theories—commences to repeat itself as soon as the telegraph has announced the appearance of a pandemic of grippe, whose beginnings we are apparently now facing.

Unintentionally two diseases are being confounded as synonyms, which are completely distinct, as are grippe or *trancazo* and dengue.

For the manner of onset, and for the syndromes, and for the countries invaded, it may be asserted that the epidemic which is now attacking various peoples of Europe has nothing in common with dengue, but is a true influenza, grippe or *trancazo*.

As we have just seen that in a semi-official manner there has been talk of means which our government thinks of adopting against dengue, fearful of blame as silent accomplices of such confusion, we sift out from the lectures [423] recently given in the Faculty of Medicine some concepts relative to the two diseases under consideration.*

*Section on dengue omitted; for a full account of dengue, see C. C. McCulloch "Dengue Fever," NEW ORLEANS MEDICAL AND SURGICAL JOURNAL, March, 1918, lxx, 694-706.

[424] Summarizing, then, dengue as an epidemic disease, as a geographical scourge (azote geográfica), presents the peculiarities of being almost exclusively of the tropical zones, of having broken out only twice in Europe (1784 and 1864), and both times having obtained foothold in Cádiz without having spread to the rest of Europe; also it is propagated by human commerce.

Nothing of this is true with grippe, influenza or *trancazo.* This is the prototype of pandemics—that is to say, of the ailments which may affect all countries and all individuals, and this in a manner almost instantaneous, without being subject to human transactions.

The word grippe, according to some authors, comes from the French word *agripper,* which means to surprise or to attack with violence; and, according to others, from the word *chrypka,* which means coryza or catarrh. The Italian writers have given it the name of influenza, which, with the preceding, is the one most used, notwithstanding the fact that the disease has been called epidemic catarrh, epidemic bronchitis, epidemic rheum, catarrhal fever, to mention only a few of the terms used by authors. The common speech also has enriched the synonymy of this affection, calling it, for example, in our country, *trancazo,* a term which expresses the sensation of depression felt by the patients and the fatigue characteristic of the majority of the forms of this disease.

In order to attain a knowledge of it, if not exact, at least approximate, we shall attempt to study it under the following aspects: history, etiology, symptomatology, forms, pathological anatomy, diagnosis and prognosis, nature and treatment.

In general, the epidemic diseases lend themselves better than others to historical study, for reasons easily understood; but, although for grippe we may have superabundant data for giving an extended account of dates and authors, we intend citing only those which may in some manner be useful to us in deducing later some conclusions directed toward the specific and concrete purpose of these lectures. Putting to one side the doubtful epidemics which authors describe from the eleventh to the fifteenth century, and of which we have hardly other data than that they were catarrhal diseases which invaded extended territories, causing death in persons of advanced age (1335), attacking sometimes nine-tenths of the population (1357), determining profound depression, lack of appetite, insomnia and cough (1403), even to the point of producing abortions and hernias (1410 and 1411); putting aside these

epidemics, some of which may be confounded with other diseases, and particularly with pertussis, we shall arrive at that of 1580, described by all the authors, and particularly by our famous Mercado. To this one, the authors who describe it agree in assigning symptoms which fit completely the description of grippe, such as severe headache, debility, cough, both symptoms persistent in convalescence, and frequent favorable termination.

In the seventeenth century are recorded at least ten or twelve other epidemics—some localized, like that of 1657, described by Willis, in London, others which spread over more or less extended territories, like that of 1669 in Holland and Germany, that of 1679 in France and England, etc.

As we advance toward our day [425] the literature of catarrhal epidemics becomes more abundant; from 1709 to 1799 there are more than thirty which we could cite. Limiting ourselves to the principal ones, we will note that of 1709 in France; the one that prevailed from 1720 to 1733, spreading over nearly all the earth, beginning in Germany, passing to England, to France, to Switzerland, to Italy and Spain, arriving in Mexico in 1731, passing to North America, and arriving again the following year in Germany, Scotland, Holland, in France in 1733, and traversing again the same course across Europe and America; that of 1762 was famous for its gravity, and was specially marked in Germany, where it left untouched hardly a tenth of the population; and in the north of France that of 1775 was also noteworthy for being widespread, and for having attacked horses and dogs.*

During the nineteenth century the following epidemics have been conspicuous: (a) that of 1830, which spread over Russia, Prussia and Austria, appearing in 1831 in England, France and Switzerland, being encountered in this latter year at almost the same date in Europe, Asia and America; (b) that of 1837, which, after having extended itself over all of Europe, assuming at times forms of great intensity, is to be noted for having served as the motive for [426] the works most worthy of study which we possess on this subject, such as those of Nonat, Landouzy, Vigla, Graves and others.

Since these epidemics, there have occurred those of 1847, 1860 and 1870.

There is not lacking an author (Gintrac) who undertakes to

*Fuller historical details, with quotations, are given in a long footnote.

deduce from the data collected by him the conclusion that grippe occurs on the average every ten years. In our understanding of the matter, this is one of the times when the average figure is lacking in significance. In this and similar cases the hygienist should by preference direct his attention to the concurrence of causes which determine two epidemics rather than to the chronological interval which separates them, because, when these present themselves simultaneously and synchronize, the epidemic event will be effected just the same with one year of interval as with one hundred. The facts corroborate the exactness of this assertion, since, in a large list of epidemics which I have before me, there are some which have between them only one year, others eight, others ten, others fifteen, and, finally, others twenty-eight.

Let us see now what characteristics these epidemics have presented.

In the first place, all the authors recognize the fact that influenza is one of the diseases whose epidemics are very widespread, being, in this sense, a ubiquitous ailment and one of the most perfect types of pandemics. In the historical review made by all the writers it seems to be noted that, of all the epidemics, those which have taken on the greatest extension and development, those in which it has been proved that all climates and all geographical regions were suited to the development of grippe, have been those of the seventeenth and eighteenth centuries. But we should not lose sight of this, in the first place, that in the centuries previous to these, the appearances of a relatively benign disease might very well pass unperceived, or at least attract a slight degree of attention from experts, at a time when scourges as terrible as leprosy, plague and smallpox devastated civilized Europe. There is nothing so very strange in the fact that we have a more complete knowledge of the progress and extension of influenza in the last three centuries, if we take into account that in them scientific commerce, the facility of communication, and the impulse imparted to the expansion of knowledge by printing, have been considerably greater than in previous epochs.

There is without doubt a fact which indicates variability in the extension of grippe, and that is this, since the second third of our century (the nineteenth) its epidemics continue to take on a character each time more localized, presenting themselves now at one point, now at another, with brief intervals of time; but those great

movements which scattered it in an uninterrupted manner over entire continents, over island, and—in a word—over all the known world, have already ceased to take place.

Likewise, the duration of these epidemics is quite variable. Some have lasted hardly two weeks, having been able in some instances to traverse the whole world in less than six months; others, as for example, that of Paris in 1837, could last ten months, although in these there are always periods of remission, alternating with others of recrudescence. In almost all the epidemics of grippe the beginning is sudden, so that in just one day many cases appear in the same city.

Another characteristic worthy of being kept in mind, of which some mention has already been made, is the large number of individuals attacked, this reaching such a point that in this respect there is no disease comparable with it.

Another peculiarity worthy of mention is its benign character, for it may be said in general that, when there are no intercurrent grave diseases and it does not develop in persons old, debilitated, tubercular, etc., it is one of the most benign epidemic ailments which is known. Some have discussed fixing the mortality of grippe in the proportion of one in a thousand; but, as is self-evident, this is a very venturesome calculation, because special circumstances and, above all, those just mentioned, can make the proportion much more unfavorable, as has happened in France and England in some epidemics of this century.

Much has been said also about the direction followed in the propagation of the disease. Until recently there was a certain accord in considering grippe as a disease which, originating in the northern regions, continued to propagate itself from north to south. Many epidemics have propagated themselves from west to east, others in the reversed direction, but, in reality, nothing positive can be said on this point, and even less at the present time, when isolated epidemics appear at points a long distance apart, leaving unaffected very extended areas.

As we see, and taking into account the data afforded us by the telegraph and the press, the present epidemic can be designated as influenza or *trancazo,* and, as such, has as its chief etiology meteorological and seasonal conditions. Since these are found out of the reach of human means, governments are thus justified in doing nothing to attack it, since the defense against its onset consists rather of individual means than of social or collective ones.

[441] CARLAN (8 June, 1918).—The question which by preference occupies physicians and public attention is that of the epidemic prevalent for three weeks past. In that which is most essential and important, this is on the decrease—that is, in the number of the cases or in the morbidity. But it is not diminishing in those manifestations, which we might call marginal, which in all times, but very specially in modern times, constitute the accompaniment of epidemics, producing in the public mind and in the serenity of scientific judgment and of professional conduct confusions, vacillations and pernicious doubts, which in the interest of all ought to be avoided.

It is self-evident that we refer to the excessive number of reports, impressions, opinions and theories which we see published daily in the newspapers, both political and literary, writings and works attested by signatures more or less known, which, being interpreted by readers devoid of the preparation necessary for judging of their true significance and content, have the immediate result of producing vacillation and distrust, as well in the medical as in the general public.

This is not a new evil. Those who have read the work which *El Siglo Médico* published at the time of the epidemic of 1889, giving its judgment regarding that disease, will remember that then was lamented this evil which is now reproduced, the evil of the exhibitionary itch for improvisations and hasty opinions.

There is no hiding from us—since we have suffered and do suffer from it—the influence begotten in all of them by the urgent desire of journalists to give the character of actuality and novelty to their publications. We know that it is very difficult to elude the temptation of celebrating an interview, of giving an opinion, or of supplying some pages of copy with a signature which lends prestige, authority and *sale* to the sheets which have as their mission the informing and entertaining of their readers. But reputable physicians, laboratories, clinical centers and other scientific entities, these, being cognizant of their own worth and expertness, do not need to strengthen one nor the other with ostentations of exhibition or with debilities of notoriety—these ought to consider the injury which results as the outcome of all this establishing of a sort of prize contest before the vulgar juryman who stumbles over it all, interpreting right and left what he thinks he is qualified to interpret.

After all, in this epidemic [442] there has been less evil in the possible result from the general effects of these boxing matches promoted by the newspapers, which have given this appearance to opinions which in reality do not disagree in any essential or in transcendency. But let us not forget what happened in other more serious epidemics, for example, in the cholera epidemic of 1885, during which no day passed without the appearance of some writing giving opinions the most stupendous concerning the character, form of propagation and treatment of the disease.

In order to judge of an epidemic scientifically, it is necessary that it should continue its development a sufficient length of time, and still better that it should have ended. The practicing physician fulfills his duty by applying his science and adjusting his conduct to it from the first day and in all the moments of the development of the disease. To the scientific societies and journals belongs the function of occupying themselves by preference with the exchange of opinions and with the explanation of reports as these go on forming; it is for this that they exist, if they enjoy the confidence and prestige due them. But there is an enormous distance between this and launching at the general public writings, reports, prognostications, which cannot be set going without risk of incurring censures often unjustified, since the haste of good desire and the exigencies of the times should attenuate them.

The Real Academia Nacional de Medicina has devoted its last two sessions to the discussion of this current theme; the debate was opened by Codina, who was followed by Huertas, Hernandez Briz, Grinda, Marañón and Pittaluga. From the brief but opportune and substantial utterances of these gentlemen, it is clearly evident that there is no doubt regarding the designation of the character of the disease, and that this constitutes an epidemic of grippe, influenza or *trancazo,* which are three names for the same disease. In regard to the laboratory investigations, which have a very different significance in the present moment of the epidemic, all that may be said is ephemeral and hasty, since neither are these the things which are improvised, nor are the existing micro-biological data which we possess with respect to grippe of a definitive and undebatable character, nor are the procedures of verification within reach of all hands.

That which is of import for the moment is that there exists accord in the designation of the disease and in the manner in which it is to be combatted.

[466] LASBENNES (15 June, 1918).—We present for the consideration of our associates the following table, in which are given the details of the mortality of Madrid in the month of May, day by day, grouped under the most interesting diagnoses of the certificates of death.

In view of the importance of the infecto-contagious affections, specially in infant pathology, we have thought it convenient to present them in separate columns, in order that the daily evolution of each one may be studied, although not one of them, as is clearly seen, has been influenced nor has exerted influence in the present sanitary state.

To avoid making the table unduly large, we have omitted malaria, which has few victims; May 21 one death occurred from this cause. We have done the same thing with erysipelas, in spite of its important streptococcic significance, because, under this diagnosis, only one died (May 29).

Under meningitis are included two deaths, May 8 and 16, from cerebrospinal meningitis, without further epidemic or meningococcic indication.

The intestinal infections have been few in number. Infantile enteritis we specify not only because it is a faithful reflex of the general state of these diseases, but also because, at the last of May, there sets in ordinarily an increase, which is augmented in June, reaching its greatest intensity in July. We think that, under the present circumstances, it is expedient to retain this.

Having stated these supplementary data of the demographic table presented, we will discuss the most salient facts which our statistics set in relief.

The most striking fact is the sudden elevation of mortality initiated May 27, after three days of slight increases, and reaching, May 31, the highest figure, 115, double the normal average for this period of the year. Although we shall not publish the data for June until after the end of the month, in order to be exact, we may anticipate to the extent of saying that in its first eight days the deaths have oscillated between 95 and 110, with a tendency to decrease, which was more clearly accentuated in the second week.

[467] During the summer and autumn of 1917 the mortality was low. An advance over the corresponding averages took place in November, December, January, February and March, with the peculiarity that it was proportionately less in those under five years;

the mortality was notably less in April, and in the first days of May (as may be seen in the table) there were some figures very low in proportion to the population of Madrid, which in spring and with a large floating mass brought to us by well-known causes amounts to about eight hundred thousand inhabitants.

Mortality in Madrid in May, 1918.—Totals* by days only:

1, 45; 2, 28; 3, 42; 4, 36; 5, 33; 6, 33; 7, 38;
8, 44; 9, 47; 10, 38; 11, 34; 12, 37; 13, 36; 14, 41;
15, 45; 16, 35; 17, 42; 18, 40; 19, 41; 20, 41; 21, 41;
22, 46; 23, 43; 24, 53; 25, 57; 26, 59; 27, 84; 28, 99;
29, 91; 30, 98; 31, 114.

Totals by diseases: Typhoid fever, 6; typhus exanthematicus, 2; smallpox, 6; measles, 20; scarlatina, 1; pertussis, 15; diphtheria, 12; grippe, 77; tuberculosis, 226; cancer, 56; meningitis, 96; heart and cerebral hemorrhages, 54; organic heart diseases, 118; acute bronchitis, 37; pneumonia, 57; broncho-pneumonia, 164; infantile diarrhea, 56; nephritis, 43; congenital debility, 52; old age, 35; others, 356. Total, 1,561.

The second point, which stands out quite clearly, is that the sudden increase in mortality was produced in the affections of the respiratory tract and in the chronic cardiopathies in this order: broncho-pneumonia, grippe, tuberculosis, cardiac diseases and pneumonias.

It is an interesting fact that acute bronchitis, 80 per cent of the deaths, from which is always in the earliest infancy, shows a very slight elevation.

The third observation was noted in the table of ages published in the preceding number;* the elevation of the mortality was proportionately less in those under five years and greater in those of 20 to 39 years.

In regard to the sexes, the proportion has been the natural one, because more males than females are born. The 1,561 deaths of May are divided: Men, 798; women, 763.

These are the facts which Madrid demography presents. We believe them of great importance for epidemiological studies. Naturally, this importance would increase and give precise orientations, if similar studies verified identical phenomena in other invaded localities.

*Only totals are given here.
*8 June, p. 458.

Terminating here our work of information, with its value more or less but positive, we will interpret it before we set forth some considerations which, to be exact, are very debatable.

First, we have to make public an ignored fact. In January, 1914, a phenomenon similar to the present one took place. The mortality had an exacerbation similar to this one, and also induced by the same mortigenic causes.

As the said month is always the one of the most deaths in Madrid from acute thoracic conditions, and as its extraordinary excess lasted little more than twenty days, no one thought of what was happening, each one supposing that he was the one who was cognizant of the greater degree of the winter exacerbation. No one that we know occupied himself with the occurrence. The certain thing is that the mortality, which in our city [468] oscillates around 1,700 deaths, reached the extraordinary figure of 2,070.

The analogy between what happened then and that which is taking place now; the rapid elevation of the mortality; the equality of the mortigenic causes; the brevity of the time in which the pernicious influence was sustained, and which now, by all indications—and may God grant it so—is going to be short also, makes us think that a cosmic, meteorological or telluric phenomenon has been the cause of both mischiefs.

That the defensive cells and the aggressive bacteria can be influenced directly or indirectly by the medium which surrounds us, is a thing which cannot be doubted. The sun, source of all terrestrial energy, is paradoxically the destroyer of many pathogenic microörganisms. The light rays, whose vibrations are more rapid than our retina can receive, especially the ultra-violet ones, kill the microbes, perhaps—pardon me the apparent absurdity of the phrase—by fulminant apoplexy. This being accepted, it could be supposed that an accident whatsoever of the physics of the globe could alter at a given moment the biologic equilibrium, favoring temporarily some species over others in the perpetual struggle for the monopoly of energy.

In the case which we are discussing, I believe that the influence has been indirect. The modifying agency has altered the respirable air in some of its components, known or unknown, and that, by insufficient excitation, has weakened the defenses of the respiratory tract.

From remote times has been observed empirically the depression

which the human organism suffers at dawn. This is appreciated especially in patients seriously ill. It is the revenge of the microbes. There are some rays *ultræquis* which favor them at our expense.

Be that as it may, we believe that this daily phenomenon, which is appreciated only in those who are at the extremity of their energies, perhaps by solar influence, sometimes—as at the present—is more intense and favors the bacterial attacks with intensity proportionate to the consumption of the initial energy which we possess.

In Madrid, according to my observations (although these require fuller verification), the larger part of the invaded were night-walkers and early risers—that is to say, those most exposed to the aforesaid sidereal effect fortuitously augmented.

Children, who with some exceptions retire early and rise late, have been slightly afflicted, and instead the victims have been registered in the ages in which, for pleasure or of necessity, one lives during the hours mentioned.

Whether these appreciations hit the mark or not, unquestionably medicine ought to occupy itself more than it has done with meteorognosy, because, united to the laboratory and to the clinic, it will be able to give us the key to some facts hitherto hardly explained.

And abandoning the land of hypotheses with which I have imprudently meddled, I am going to close, permitting myself to counsel my colleagues that, profiting by the preoccupation which every epidemic begets among the people, they carry to an extreme their advice on diet, not because it influences the actual evil, but to prevent—given the period into which we are entering in which the estival enterites begin to develop their mischiefs—a change in the place of least resistance, which would cause great evils.

[518] Madrid Sanitary Report (29 June, 1918).—The condition of public health keeps on improving in Madrid, although it is too early to assert that the grippal epidemic has disappeared completely. While it is certain that the number of acute and benign cases is very small, the pulmonary and congestive forms and the complications in the chronic ailments continue to give the specific character of the same. The mortality is reduced to the figures usual at this season of the year.

THE INGUINAL APPROACH IN THE CURE OF FEMORAL HERNIA.* †

By LUCIAN H. LANDRY, M. D., F. A. C. S., New Orleans.

The impression prevails in many minds that the cure of femoral hernia is a simple procedure and that all that is necessary to attain a cure is simply to obturate the saphenous opening by bringing together adjacent tissues in the vicinity of the hernial orifice, after ligating the sac as high as possible. That an anatomical knowledge of the field is absolutely unnecessary, and that recurrence is as rare as in inguinal hernia, are prevalent misconceptions that should be cleared from the surgical horizon before any attempts to describe operative technic are seriously considered.

The radical cure of femoral hernia, just as in inguinal hernia, depends upon four fundamental principles: First, a clear anatomical exposition of the field; second, high ligation of the sac; third, snug closure of the internal ring, followed by adequate myoplasty; fourth, aseptic wound-healing.

The high percentage of recurrence in femoral hernia is best shown by the following statistics:

According to Coley,[1] who has had an exceedingly large experience in herniæ of all kinds in the Ruptured and Cripple Hospital of New York, "up to 1890, the results of operation in femoral hernia showed about 30 per cent of recurrences." Bresset,[2] in a study of 395 femoral herniæ, found that in 232 cases that were operated without closure of the femoral ring, 29 per cent recurred, and in 163 cases operated with closure of the ring, 8.6 per cent recurred. According to Potts,[3] in 422 cases there was a recurrence in 36.7 per cent in the cases where the ring was not closed, and 28.4 per cent recurrence in those that were closed.

Moschowitz[6] reports a case which he operated in 1904 by the method of DeGarmo. In 1906 he did a laporotomy on the same patient, examined the hernial site from the abdominal side, and to his surprise could introduce his index finger to a depth of two inches, practically to the saphenous opening. This case examined externally would be classed as a cure, still it presented the possibility of a strangulation.

That the cure of femoral hernia has been quite a problem in the minds of surgeons for the past forty years or more cannot be doubted

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†Contribution of the Surgical Division of Tulane University, School of Medicine.

if we but look over the literature on the subject. While there have been comparatively few methods advocated for the cure of inguinal hernia, the number of procedures advocated as a radical cure for femoral hernia is appalling. The very exhaustive and complete work of Robert Didier,[4] in 1912, bringing the literature on the subject up to date, contains an index of 158 publications on the subject—84 in French, 43 in German, 20 in English, and 11 in Italian.

In 1896 Tuffier[5] counted twenty-nine methods in use or advocated for the cure of femoral hernia, while in 1907 Moschowitz[6] found over seventy methods and modifications. I will not try to enumerate the various procedures advocated, but will rapidly mention a few methods which have been more or less popular.

In 1871 Widenham-Maunsell[7] advocated median laporotomy to reduce femoral hernia when strangulated or incarcerated, and the closure of the ring from within. This was also advocated by Annandale[8] in 1878. Tait,[9] in 1883, concluded that the radical cure of all herniæ other than umbilical should be done by abdominal section and that this route should be used even to treat strangulated hernia.

Socin, [10] according to Jaboulay, in 1879 claimed good results by simple high ligation and extirpation of the sac and inverting the skin, without attempting to close the femoral ring. Mitchell-Banks[11] and Ochsner[12] do not close the ring. Billroth[11] (quoted by Camson) incised the sac without extirpation and without closing the ring. Berger,[13] after high ligation, leaves the strands long, arms them with needles and transfixes the abdominal wall, tying on the external oblique, just as Barker[14] advises in inguinal hernia. This is followed by a double pursestring suture, closing the femoral ring on the inner and outer side. Ball,[10] in 1887, advocated torsion of the sac. Tricomi,[15] Lucas Championniere,[16] Boltini,[10] Richelot,[17] Lockwood,[18] Coley,[1] Cushing-Marcy[1] and Wood use pursestring suture of the orifice after high ligation of the sac.

Bassini,[19] with an incision parallel and slightly beneath the crural ring, ligates the sac as high as possible. With interrupted sutures, Poupart's ligament is united to the pectineal fascia; then the falciform fascia is joined to the pectineal fascia, the lower suture entering just above the saphenous vein. DeGarmo's[20] method is practically the same as Bassini's, except that a smaller number of sutures are used to accomplish the same purpose.

Fabricius and Trendelenburg[21] (according to Jaboulay and Patel)

suggested obturating the femoral opening by a bone flap turned down from the anterior portion of the pubic bone. Theriar[22] (according to Jaboulay) used a portion of the head of a humerus which he had just resected to obturate the femoral opening; the same author ordinarily used decalcified bone. Chaput[23] used a fragment of costal cartilage for the same purpose, while Green[24] used a piece of the eleventh rib, two inches long, to bridge over a large femoral opening. Schwartz placed a tampon of catgut in the crural opening to induce a "cicatricial stopper." Thompson[25] used celluloid filigree for this purpose, while Phelps[26] (according to Lance) used wire filigree. Roux[27] (de Lausanne) used a staple to bring Poupart's ligament to the pubic bone; Lerat used a screw to accomplish this result.

Nicoll and Hammesfohr[21] bore holes in the pubic bone through which they suture Poupart's ligament to the pubic bone. Fabricius[28] and Delageniere[29] advise partial or complete division of Poupart's ligament to allow it to be attached to the pubic bone. Salzer[30] used the aponeurosis of the pectineus as a "stopper" for the femoral ring, while Watson-Cheyne[31] used the pectineus muscle, denuded of its aponeurosis, for this purpose. De Garay[10] used the sartorius. Poullet[32] utilized the tendon of the adductor longus. Schwartz,[33] the adductor brevis, with a large pedicle. Witzel and Dawborn[21] also advocate muscular aponeurotic flaps. Chaput[34] used an adipose pediculated graft in large femoral hernia.

The inguinal approach in femoral hernia was first advocated by Annandale,[35] who in 1876 operated a patient with an inguinal and femoral hernia on the same side. He opened the inguinal canal, reduced both herniæ, suturing Poupart's ligament to Cooper's ligament, then closed the inguinal hernia.

Zuckerkandl,[36] in 1883, after cadaveric research, advocated the inguinal route in strangulated hernia. These contributions toward the radical cure of femoral hernia went practically unnoticed until 1892, when Ruggi[37] published a complete technic for surgical intervention in femoral hernia by the inguinal route. The year following, Parlavecchio[38] offered a modification of Ruggi's method. Tuffier,[39] in 1896, popularized the method in France; Gordon,[40] of Dublin, in 1900 advocated the inguinal route, suturing the internal oblique and transversalis to Cooper's ligament. Guibe and Proust,[41] in 1904, suture the internal oblique and transversalis to Cooper's ligament after completely dividing Gimbernat's ligament. The in-

guinal route of approach has also been advocated by Codivilla[42] and Magni in Italy; in Germany and Austria by Lotheissen,[43] Foderl,[44] Reich[45] and Frank;[46] in England by Fagge[47] and Gordon;[48] in Roumania by Bardescu;[48] in France, after Tuffier-Berard[49] (twenty-five cases by "double rideau"), Vallas and Perrin[50] at Lyon (inguinal method without closing crural ring), Chaput,[51] Dujarier[52] and Demarest[53] at Paris.

Dujarier reports thirty-one cases of femoral hernia operated by inguinal route with no recurrence. He makes it a practice in all inguinal hernia, when he opens the sac, to put a finger in and examine the femoral opening. In two cases he found small herniæ that had escaped the clinical examination. Dr. Matas first used the inguinal method in New Orleans in 1893, shortly after the publication of Parlavecchio.

Moschowitz,[6] in 1907, published a technic in America, giving full detail of closing the femoral opening after high ligation of the sac by suturing Poupart's ligament to Cooper's ligament. Seelig and Tuholske,[54] in 1914, published an excellent article in *Surgery, Gynecology and Obstetrics,* giving a full, well-illustrated description of the technic by the inguinal route, with a supplementary note on Cooper's ligament. In describing the technic of the inguinal operation and Cooper's ligament, I shall draw largely from this article. In 1915, J. D. S. Davis,[55] of Birmingham, Ala., read a paper before the Southern Surgical and Gynecological Association on the Moschowitz operation, using largely the illustrations of Seelig.

To understand the inguinal mode of approach in the cure of femoral hernia, one must have a thorough understanding of the anatomy of the pelvis, and especially of Cooper's ligament, as this structure plays a large part in the myoplasty.

Testut[54] (quoted by Tuholske) describes Cooper's ligament as follows:

> **'The superior border of the pectineal crest is covered by a sort of fibrous cord, very thick, very dense, very resistant, intimately adherent to the bone, and extending from the spine of the pubis to the ileopectineal eminence. This is the pubis ligament of Cooper, or, more simply termed, Cooper's ligament.''**

Poirier and Charpy[54] (also quoted by Tuholske) furnish the following description of the ligament:

> **''The ileopectineal line of the pubis marks the point of fusion of various fascial layers: the pectineal fascia, Gimbernat's ligament, behind this the posterior pillar of the external ring, and finally the trans-**

versalis fascia, reinforced by the ligaments of Henle and Hesselbach. Thus the angular bony edge overladen by all these insertions is transformed into a rounded cord, which is given the name of the pubic ligament of Cooper—'Cooper's ligament.' ''

TECHNIC.—The technic that I have employed in eight cases operated since 1915* is practically the same as that described by Seelig, consisting of the following: An incision is made, the same as that used to close an inguinal hernia, except the lower end approaches the pubis more. The incision should be from three to four inches in length, and, if necessary, may be continued on down the thigh, if this is found necessary by a very adherent sac. Next, the external oblique is divided in the direction of its fibers by splitting up the external abdominal ring. By pulling up the superior flap of the external oblique the conjoined internal oblique and transversalis are brought into view. These are retracted upward; the inferior border of the external oblique is retracted downward, bringing Poupart's ligament into view. The round ligament, or the spermatic cord in the male, is retracted upward. Strong retraction at this stage gives a very good exposure and brings the transversalis fascia into view—a thin layer of fascia lying immediately anterior to the peritoneum. This fascia is incised in the line of the original incision and picked up with the retractors. Retraction will here bring the neck of the sac into view. The deep epigastric artery is generally encountered here, at the outer margin of the incision; should it run an anomalous course it may be divided between ligatures.

The sac is now gently pulled (provided the case is not one of strangulation) in an effort to transform the entire hernial sac and its contents into an inguinal hernia. Should you be dealing with a strangulated hernia, or in the event that the sac is adherent in its bed, the sac is opened, contents returned to the abdominal cavity (if healthy), adherent omentum separated and ligated; a curved forceps is then introduced into the sac, down to its lowest point, the end caught and the sac inverted. Should the sac be too adherent, the skin incision may be here extended down the thigh. The sac is now tied off by a transfixion ligature or suture, as high as possible, to guarantee against leaving a dimple, protrusion or any other variety of potential hernia.

The next step is the closure of the femoral ring. We find the boundaries of the femoral ring to be: anteriorly, Poupart's ligament; internally, by Gimbernat's ligament (covered by a reflection

*Two cases operated under local anesthesia since the reading of this paper.

wire filigree. Roux[27] (de Lausanne) used a screw to accomplish of the transversalis fascia); posteriorly, by Cooper's ligament; and externally, by the external iliac vein. With a small, full-covered needle armed with chromic No. 2, a deep bite is taken through Cooper's ligament down to the periosteum, while the external iliac vein is protected and drawn outward gently by the index finger of the left hand; another bite is taken through the lower flap of the transversalis fascia and the edge of Poupart's ligament. Two like sutures are placed internal to the first, the most internal picking up Gimbernat's ligament in its bite. When these sutures are tied they bring Cooper's ligament in contact with Poupart's ligament, completely closing off the hernial orifice.

The rest of the operation consists in closing the abdominal wall, just as we would in an inguinal hernia.

This operation is probably longer than by the ordinary crural incision, in so far as we do a femoral and an inguinal hernia combined, but it has the added advantages of (1) a clear and distinct exposure of the anatomical field; (2) high ligation of the sac is assured; (3) secure closure of the femoral ring is accomplished; (4) the second or abdominal incision is not necessary (as is advocated by many authors when the crural route is employed) when dealing with a strangulated hernia.

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DISCUSSION ON THE PAPER OF DR. LANDRY.

Dr. E. Denegre Martin, New Orleans: I am very glad Dr. Landry has brought this subject before us for discussion. He has enunciated a simple principle, which was not clearly understood before, due, to the fact, probably, that in the beginnng, when most of the operations were suggested for the cure of femoral hernia, there was the fear of entering the abdomen, and then the inguinal canal was looked upon as complicated, and with the fear of a resulting inguinal hernia. My attention was first called to the importance and necessity of operating on these hernias by a suggestion made by Dr. Ochsner some years ago, when he claimed that if you could close the sac entirely in a hernia the hernia would remain well; it made no difference what kind of a closure you made afterwards, provided, of course, you approximated the wall. In a femoral hernia you have a femoral canal half an inch in depth. It is impossible to proceed from the outside and close that canal entirely; it makes no difference what operation you do. We may, by suturing the fascia, which is usually done, and resecting the thing, hold it for a long time, but in 30 per cent of the cases recurrence takes place. I can understand that easily. What do you do? You simply close the sac and return the contents and leave the furunculus just as you have a funnel-shaped opening in an abdominal wound. You have the identical condition which originated as the hernia appeared, and you will have a recurrence of the hernia unless the ligaments are sutured together to hold it. If you can at once close that entirely so that you have a perfectly smooth surface on the inside, I do not know that it is necessary to suture the ligament fibers inside. You can invert the sac, and in the cases I have had it has not been difficult. In two cases operated on for other conditions in which I found an incarcerated hernia, I was able to catch the sac from the inside, invert it and suture it, and there has been no recurrence in those cases. These cases occur in women, because the canal is quite large. I have never seen but one femoral hernia in a man, but I have seen fifteen in women. In the first three I operated on the hernia recurrred. I did not know why until I investigated the thing. The last case held for three or four years. In nine of these cases I went through the abdominal route, which you can do quite well. It is not so difficult. You can retract the abdominal walls, and with a little manipulation invert the sac, ligate, close the canal, and you have accomplished your whole purpose, and Ochsner claims that the canal eventually closes entirely and there is no further

trouble. The principle is simple, and I do not know why we did not grasp it and appreciate it sooner.

Dr. C. P. Gray, Monroe: There are one or two questions I would like to ask the doctor. In the first place, I want to thank him for the concise manner in which he has presented this subject.

After you have ligated the sac, I would like to know whether you have ever followed the plan adopted by Dr. E. Wyllys Andrews, of Chicago, of putting in a half pursestring suture, going in through the ligament and letting it go through the layers and coming out above?

The next question is, what has been your experience in closing the inguinal ring? When you have closed the femoral hernia, what have you done with the red muscle, or have you used the red muscle in lapping over and closing the inguinal ring?

Dr. Lucian H. Landry, New Orleans (closing): I wish to thank Dr. Martin for saying in a few words what it took me quite a long time to say.

The thing that brought this route to my mind especially was a ticklish occurrence. The last case I operated on by the crural route was one of strangulated hernia. I attacked it from below and I had to cut Gimbernat's ligament to relieve the constriction. When I did so the bowel shot back into the abdomen. I fished for it with a sponge-holder; I did not catch the loop of intestine, that was apparently down in the canal, but at any rate the loops I pulled down were healthy. I thought I would try to prevent a recurrence by anchoring the sac higher up, as advocated by Berger, using a transfixing ligature and putting it upon the abdominal wall. This was done. The patient did well for six hours, wanted to urinate, but could not, and the passage of a catheter showed a little blood. I figured that my suture had gone into the bladder. It worried me some. I waited a little while, then distention started. So I got anxious. I called Dr. Matas to my aid. We opened the abdomen and found just a little knuckle of bowel had been strangulated (Richtor's hernia); we resorted to resection and anastomosis, and left a suprapubic bladder fistula. It was a good thing for the patient that I had to go away the next day, and Dr. Matas looked after the case, the patient finally making a good recovery.

So far as the question of Dr. Gray is concerned, in closing the inguinal hernia, you do it the same, whether you resort to a Bassini or a Ferguson operation. We have been doing the so-called Ferguson-Andrews operation by not transplanting the cord. After you have ligated the sac high up it is identical with the inguinal hernia operation.

THYROIDECTOMY UNDER LOCAL ANESTHESIA.*

By CARROLL W. ALLEN, M. D., New Orleans.

This discussion will deal principally with exophthalmic goiter, as the operative technic of the simple colloid goiter under local anesthesia presents no special difficulties, and the steps are identical with the two types; only when a colloid goiter is unusually large is any variation in the technic necessary.

*Read before the Orleans Parish Medical Society, September 23, 1918. [Received for publication, October 2, 1918.—Eds.]

To satisfactorily and intelligently operate under local anesthesia we should first become thoroughly familiar with the source and distribution of the nerve supply of the region. This is one of the fundamental factors of success, as I have often said before in discussing these subjects, local anesthesia makes of us nerve anatomists.

The skin of this region is supplied by the superficialis colli nerve formed by branches from the second and third cervical, which emerges from behind the posterior margin of the sternomastoid muscle and curves forward just above the point where the external jugular vein passes over this muscle, and, passing forward beneath the jugular and platysma muscle, divides into branches which supply this muscle and the skin of the anterior region of the neck from the chin to the sternum.

Beneath the area of distribution of this nerve we come to that supplied by the loop formed by the descendens hypoglossi and the conjoined branch from the second and third cervical nerves, which descend from the upper part of the neck upon the carotid sheath and supplies the sternothyroid, sternohyoid, both bellies of the omohyoid and the anterior surface of the thyroid gland.

The third and last source of nerve supply is that to the under surface of the thyroid gland; this is from the deep branches of the cervical plexus, from the nerves that supply the longus colli, rectus lateralis and other prevertebral muscles.

These nerves are all small branches and pass forward to the under surface of the gland.

This completes the nerve suply of the region, and we should now be able to intelligently proceed to block off this region quickly, methodically and with a minimum of anesthetic solution. Should discomfort be complained of at any point we should be able to determine its source by the depth at which we are working and relieve it immediately by additional injections at the indicated point, and not by aimlessly injecting in all directions in hopes of catching the offending nerve.

In discussing the injection of any region, it is understood that certain refinements of technic should be made use of, such as establishing an intradermal wheal with a fine needle at any point at which a larger needle may be entered for deep injections, and in very sensitive patients the skin may be frozen before making this first wheal. Also, in making deep injections or advancing the long needle through the tissues to any desired point, to progressively inject the solutions as the needle is being advanced.

Knowing our nerve supply, we can now proceed intelligently to block off the operative field. For the skin, we have the choice of two methods, both of which I make use of.

We may block the superficialis colli where it curves over the sternomastoid by passing a long needle down to the deep fascia over this muscle, just behind the point where the external jugular passes over this muscle, and directing the needle upward in the long axis of the muscle, injecting this area quite freely for about one and one-half inches, using about 5 to 10 c. c. of solution. This injection, when properly made, will reach all branches of this nerve and give us a superficial anesthesia down to the deep fascia and extending almost from the chin to the sternum. The same procedure is repeated on the opposite side.

The other method of superficial anesthesia, and the one more commonly used, is to make a fairly free subcutaneous injection along the proposed line of incision. This is best done by making a skin wheal in the mid-line of the neck and, entering a long needle at this point, injecting first to one side, then withdrawing the needle and directing it in the oposite direction.

Having satisfactorily anesthetized the superficial parts, we now turn our attention to the deeper parts supplied by the loop formed by the descendens hypoglossi and second and third cervical. It will be seen, by considering the course and distribution of this nerve, that it can be effectively blocked by an injection made down to the carotid sheath, above the field, in the lower part of the superior carotid triangle, entering the needle just above the omohyoid muscle and making the injections just beneath the deep fascia, when it will diffuse in all directions, reaching the nerves as they come downward and forward. For this purpose, the long needle is entered near the outer extremity of the subcutaneously infiltrated area, should this method have been used, or, if the superficialis colli has been blocked, at any point near the lower part of the superior carotid triangle. As the needle is advanced down to the carotid sheath, the solution should be injected continuously as the needle is being advanced. If the needle is of small caliber, with sharply beveled point, no damage should result from contact with a vessel. It is, however, a good precaution, when making an injection in the neighborhood of large vessels, to aspirate slightly before making the injection, to determine whether or not a vessel has been entered. This injection, when properly made, is free from danger, but the oper-

ation may defer this step until this skin flap has been raised, which gives a slightly closer approach to the area of injection.

Having made the skin incision and retracted or divided the thyroid group of muscles, as may seem necessary, the anterior surface of the gland is thoroughly exposed, permitting the needle to be passed under its lateral edge at two or more points, infiltrating the cellular tissue behind the gland, thus reaching the deep group of nerves to its posterior surface.

This completes the anesthesia, and the enucleation or resection of the gland can now be proceeded with by any method preferred by the operator. Its posterior capsule and a small piece of the gland, about one-sixth or one-eighth of its total, should always be left in place, for obvious reasons. For my own part, I always prefer to divide the isthmus first when operating under local anesthesia, and roll the gland out away from the trachea, thus avoiding the repeated disturbance to this part from traction on other parts of the gland, which is always quite disturbing to the conscious patient. Another advantage in dividing the isthmus first is that the gland can be rolled outward and lifted from its bed with more facility, as it is unattached at any other points except by vessels and fascia, and, as the gland is lifted up, the vessels on its under surface can be readily seen and ligated, and the danger to the recurrent laryngeal nerve greatly lessened.

There are many little refinements of detail and technic, which can hardly be brought out in a paper of this kind, which apply in a general way to all operations under local anesthesia.

This subject is never complete with a simple discussion of the operative technic, as there are other things to be considered. It is not advisable to operate upon all cases, and some operations have to be performed in stages. Very severe cases, when suffering from edema, ascites, dilated heart, diarrhea, gastric crisis of vomiting and other visceral disturbances, should not be operated at once, but kept under observation, with rest, ice bags and other indicated treatment, waiting for a lull in the symptoms. Many of these severe cases have suffered permanent injury to the heart, kidneys and other organs. It is consequently always desirable to operate as early as possible in all cases which do not yield to medical treatment.

It is doubtful if severe cases should ever have the complete radical operation of double resection or lobectomy done at one time, but it

is safer to do one side at a time, allowing one or two weeks for recovery, when the other side may be done.

In quite severe cases, too sick to attempt the radical resection of a part of the gland, but yet capable of standing a limited amount of surgery safely, we can often accomplish a decided abatement of the symptoms by ligating one or both poles of the gland. This, when properly done, often accomplishes much good and allows the patient to recover sufficiently to permit the safe resection of a lobe.

To properly ligate the thyroid pole, an incision can be made across the neck at the proper level, or I often prefer an incision on the inner side of the sternomastoid, exposing by blunt dissection the pole of the gland, when a silk or linen ligature on an aneurysm needle is passed around the upper extremity of the lobe embracing arteries, veins, nerves and a small portion of the tip of the gland, tying the ligature quite firmly. Catgut is objected to for this purpose, as it may be absorbed too early. The vessels should not be dissected out and ligated singly, nor should the ligature be placed above the pole of the gland, if the best results are to be accomplished, as the anastomosis between the vessels of the upper and lower pole is quite free, and unless done in the proper way the circulation is compensated quite early and our object defeated. Much improvement often follows this ligation, and in some cases the improvement is so marked that the patient objects to further operative intervention; but this is a serious mistake, and advantage should be taken of this lull to perform the resection, which should be done in from one to two or three weeks following the ligation.

The psychical effect of any operative procedure upon these cases is often considerable, and they suffer acutely from fear, which increases the blood pressure and heart activity, thus greatly stimulating the activity of the gland and increasing all the toxic symptoms. It is consequently better to keep these cases in the hospital a few days before operation, not letting them know exactly when it will be performed. During this time they should be kept absolutely quiet in bed, free from visitors and other disturanbces, with an ice bag continually to the neck, avoiding meats, coffee, alcohol and all stimulants in diet. As these patients have absolutely no control over their emotions, and as fear is largely a psychical manifestation, it is highly desirable to control the psychic functions by a large dose of some opiate before going to the operating room. I do not like morphin in these cases, as it sometimes excites them and does not

exert any hypnotic influence; scopolamin is also objected to for similar reasons. Pantopon, representing the entire active principles of opium, makes the ideal hypodermic, using from one-half to two-thirds of a grain about one hour before the time set for the operation. This dose is sufficient to render the patient dull, apathetic, and inclined to sleep when left alone; the patient is thoroughly conscious, but just enough under the control of the drug to be listless and indifferent—an ideal state for operation, when it is highly important to have under control all psychical disturbances. These are the essential points in the surgery of this condition under local anesthesia.

Its advantages are many. When handling these cases in this manner, the danger is greatly lessened, general anesthetics favoring edema of the lungs, and renal suppression in bad cases, and by the vascular congestion which they induce, greatly increase the toxic activity of the gland. With local anesthesia, which is now used always in conjunction with adrenalin, we have the opposite condition, ischemia, which greatly lessens the activity of the gland, and especially at the time when it is desirable to have it under control. The recovery following operation is greatly facilitated when done under local anesthesia, as the patient can at once begin to take water freely to flush out the emunctories and more rapidly relieve the toxicity.

Before closing, I would like to call attention to the enlargement of this gland, which often occurs in young girls about the age of puberty, before the menstrual function has been regularly established, and is often associated with mild toxic symptoms. In these cases we should not operate too hastily, as the condition will usually subside under proper treatment directed to the regular establishment of the menstrual function.

DISCUSSION OF DR. ALLEN'S PAPER.

Dr. L. H. Landry: Dr. Allen has undoubtedly brought out the most difficult type of goiter to treat with local anesthesia; almost any one with a little experience in local anesthesia can remove a colloidal or cystic goiter without much discomfort to the patient. The utmost care must be exercised in the exophthalmic or highly nervous type. If you take any patient with a moderately developed exophthalmic goiter into an operating room you will find a jump of approximately twenty beats in the pulse rate as compared to the rate while in bed. For this reason this type of patient should never be wheeled into the operating room without a blindfold, or allowed to see the nurses, assistants and instruments. While operating, it is very bad practice to be calling for a knife, scissors,

clamps, etc.; the less conversation (except to reassure the patient) the better. For this reason, local anesthesia is not a good amphitheater procedure, but should be conducted in a small room, with as few assistant and little noise as possible. While we are very partial to local anesthesia, and have used it a great deal in all types of goiter, I am reminded of a very tragic experience we had some years ago with an exophthalmic goiter. The patient had had a polar ligation performed and was kept in the hospital some three or four weeks before the second operation was undertaken. She was brought to the operating room with a towel over her eyes and put on the operating table; we wanted to get the benefit of gravity anemia, and instructed one of the interns to elevate the head of the table; the gentleman handling the table was not familiar with its mechanism, and allowed the table to come up suddenly; this startled the patient, and at once her heart began to "run away." We tried to reassure the patient in every way that there was no harm done, but to no avail. Hher heart stopped suddenly, and in spite of everything that we did, including heart massage, the patient died before our eyes, before anything surgical, even the introduction of a hypodermic needle, was attempted. This patient absolutely died of fright.

With an experience like this, one cannot fail to be impressed with the gravity of these cases and the care that must be exercised in using any kind of anesthesia.

Recently we have been using Gwathmey's ether-oil rectal anesthesia, started in the patient's room, and have had uniformly good results, from an anesthetic and operative standpoint, in the severe types of exophthalmic goiter. I think that this convenient and comparatively safe mode of anesthesia, properly administered, should be kept in mind when dealing with the highly nervous indvidual.

Dr. H. E. Bernadas: To say we appreciate Dr. Allen's paper is putting it very mildly, because Dr. Allen is not only a pioneer in the study of local anesthesia, but, to my mind, is a master. Therefore I have no hesitancy in asking Dr. Allen if he would tell us his choice of a local anesthetic, and if he would explain to us the comparative value of the use of apothesine and novocain.

Dr. L. Sexton: Several years ago I reported before this Medical Society a large colloidal thyroid removed with local anesthesia. Owing to the extreme age of the patient and her condition, she could not take a general anesthetic. She had not been able to recline in bed at all for quite a number of months, and as a result had bed-sores. The pressure ulcers had formed, as she was constantly sitting in the upright position. I did not desire to operate on the patient at all, and told the family that laying her flat on the table, just as Dr. Allen has explained, might be fatal; that we could not give her a general anesthesia, and would try local anesthesia. I did not understand then the neural anatomy of the part as the doctor so nicely explained to-night, but adopted the plan of local anesthesia as in vogue at the time. One per cent solution of cocain was injected after making a wheal in the skin line of the incision, and then made a cut, which had to be rather large on account of the great size of the goiter. After the upper pole of the goiter had been released I worked from the upper part down, injecting into the deep fascia behind the tumor 1 per cent novocain, as required. She was given one-eighth grain of morphin one hour before operation. The case was reported in the **New Orleans Medical and Surgical Journal** several years ago. The old lady is enjoying good health.

I wish to thank Dr. Allen for giving his technic. I am pleased to have been here to hear his timely paper at this time.

Dr. **Allen** (closing discussion): The choice of a local anesthetic is, of course, a very important one. I avoided saying much about it because, as soon as one talks about the different solutions, there is a great deal that might be said. Novocain is unquestionably the peer of local anesthetics. We adopt cocain as a standard, because it was the first local anesthetic discovered, being introduced to the profession in 1884 by Karl Koller in the Ophthalmological Congress at Heidelberg, and all of our local anesthetics date from that time. Novocain is just about one-seventh as toxic as cocain, and is non-irritating to the tissues. The addition of adrenalin to the solution renders it more efficacious, but care should be exercised as to the amount used, not more than five drops being used to each ounce. I recall being asked to see a patient, by a confrère, who was said to be suffering from the effect of cocain poisoning. It was distinctly a case of adrenalin poisoning, as he showed no effects of cocain. The use of too strong solutions of adrenalin also frequently causes sloughing of the parts, due to acute vasoconstriction of the vessels, which produces ischemia of the part. This is especially apt to occur when used in large areas. As regards the efficacy, I place novocain first on the list, eucain second, apothesine third, and cocain last, on account of its toxicity. (This is based on personal experience and experiments which I have made.) The addition of sodium chlorid, in order to make an isotonic solution, is a great advantage. Schleich, who is really the father of local anesthesia, used this in his solutions, when he employed 2.10 per cent, which I have thought better doubled, and in all my solutions I recommended the addition of 4.10 per cent.

RETRO-PHARYNGEAL ABSCESS.*

By M. P. BOEBINGER, M. D., New Orleans.

Vanity is an heirloom possessed by many; honesty by few. Man has always accused the female as being the proud possessor of this keepsake. The human family is weak when it comes to accepting successes and is prone to push forever into oblivion their failures. It is, therefore, with this idea in view, that the author reports the loss of a child to this fraternity, fully realizing and understanding that they, too, are the victims of this dreaded and incurable disease known as "failure." The younger man must always look forward to his older and more experienced colleague to take the lead and report such failures as must eventually prove the great barrier to the onward march of the young, ambitious practitioner.

Early History.—The first mention of this affection dates back to the second century of our era, when Galen relates a case in his own experience. Since then, no mention seems to have been made

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in the medical literature until the middle of the eighteenth century, from which time until now very little has appeared in our literature. Bokai, of Budapest, has collected over five hundred cases, but there exists not even a monograph on "Retro-Pharyngeal Lymph Adenitis" in English.

There is a rather prevalent belief that retro-pharyngeal abscesses are seldom encountered, except in children, and that caries of the vertebra due to cervical Pott's disease is the chief cause of this condition. That such a belief should be so widely held is probably due to the fact that the condition is often overlooked, except in the case of tuberculosis of the cervical vertebra, when its possibility is always kept in mind and when its diagnosis is comparatively easy. Irrespective of retro-pharyngeal abscesses often seen in adults, it is essentially a disease of infancy and early childhood, and when recognized early and treated surgically and skilfully should end in a speedy recovery. When complicated and secondary to middle-ear disease it should be regarded as of critical importance.—Prof. Jacques, Nancy.

Ages When Seen: Koplik reports a series of seventy-seven cases occurring between the ages of twenty-one months and five years, the greater majority (41 cases) occurring between the ages of six and twelve months. Billings and Wilson report death of a man eighteen years of age; Man reports death of a man of thirty-three years; Meierhof speaks of death in infant; Cline reports death of man fifty-seven years of age; Klug reports death of a young girl due to erosion of carotid artery; Dr. Carter reports death of infant eight months; Dr. Charlton reports death of child eight years of age; Meierhof claims to have seen fifty cases of retro-pharyngeal abscesses, all patients were under three years of age; Herrold reports case of young woman of twenty-two years of age, previously healthy; Moore reports a case in a man aged forty years; Dunn, one in a man aged sixty-two years.

Etiology.—The cause is sometimes very obscure, although occurring, as it does, most frequently in the poorly-nourished and rachitic, it is occasionally met with in patients who have previously been perfectly healthy. Any of the acute inflammatory diseases of the nose, mouth or pharynx may be a predisposing cause. Some authors have reported seeing retro-pharyngeal abscesses following operative procedures in the nasopharynx and pharynx. Retro-pharyngeal abscess may be acute or chronic. It may be situated in the mesopharynx, in the hypopharynx, or in the epipharynx.

There is an infection beneath the mucous membrane. The morbid bacteria gain entrance through the lymph vessels, the atrium of invasion being in one of the neighboring tissues which is diseased; tonsillitis, a post-operative tonsillar wound, a tuberculous tonsil, tuberculous cervical glands, caries of the vertebra, lues, acute coryza, infectious diseases of infancy and childhood. Koplik has isolated four distinct species of the streptococcus which he says are the micro-organisms present in the pus of these abscesses.

Anatomy.—Behind the pharynx and esophagus a species of cavity exists, bounded posteriorly by the mucous and fibro-muscular wall of the pharynx and on the sides by the lateral aponeurosis. This cavity is baggy and in the midst of areolar tissue. It extends from the base of the skull to the mediastinum. Inside this cavity lie the lymphatic glands, first described by Gillette and called Gillette's glands. The median fibrous raphe, the common point of meeting of the constrictors, divides the post-pharyngeal region into two retro-pharyngeal spaces. The larger vessels and nerves of the neck are found laterally to this space. The greatest interest should be attached to these "lymph nodes," for they receive the lymphatic vessels from the nose, post-nasal space, pharynx and deep cervical region.

Infection may start from any of these organs and focus itself in the retro-pharyngeal glands. The important point is that the lymphadenitis is the essential lesion in a retro-pharyngeal abscess of acute form. Gillette's glands differ in no way from those which compose the rest of the chain known as Waldeyer's ring. This chain drains all the cavities of the face, nares, region of the Eustachian tubes, pharynx, and is in direct connection with the lymphatics of the middle ear. The probable cause of so few cases being reported in adults is perhaps due to the early quiescence or atrophy of these glands.

Symptoms.—The vast majority of retro-pharyngeal abscesses are found in early life, few occurring after five years of age. At this period there is a large number of catarrhal diseases of the naso-pharynx. Every one is acquainted with the retro-pharyngeal lymphatic nodes, but the occurrence of septic infection of these masses of gland tissue in association with suppuration of the ear seems to have escaped general attention. Yet, in infants particularly, the combination is by no means uncommon, and even in adults unilateral swelling of the posterior pharyngeal wall, probably

adenitis which has not come to abscess formation, is not uncommon in suppuration of the middle-ear. Septic adenitis in this situation, however, may plausibly be ascribed, not to infection from the middle-ear, but to infection from the nose or nasopharynx—that is to say, the retro-pharyngeal adenitis and the otitis may be looked upon as independent of each other, save in the sense that they both arise from one common cause. Nevertheless, it is, on the other hand, highly probable that the infection of the pharyngeal gland is sometimes transmitted to it from the middle-ear cavities, or at least from the Eutachian tube, since, as Golgi's researches and the clinical course of cancerous growths in the middle-ear alike show, there is lymphatic connection between the middle-ear and the lymph nodes in the pharynx. But pharyngeal abscess of this kind, if due to infection from the middle-ear, is a metastatic infection.

There are few conditions more difficult to recognize, in their early stages, or more bewildering when seen in their full development. In the long experience of many busy physicians, none have been observed, others have recognized only a few, while many, perhaps, have gone their way unrecognized.

The subject of retro-phrayngeal abscess is one of more than ordinary interest to the laryngologist, for the reason that it may be, and is, often overlooked by the busy general practitioner, on account of the rarity of the disease and the lack of expertness in examining the throats of infants and young children. The specialist is usually called in at a time when the case has become serious and something must be done, it being a disease of fatal tendency, manifesting a variety of clinical aspects, involving, as it does, the adeno-lymph structures of the oro and the laryngo-pharynx. As these structures mature early in infancy and childhood, it is then when they are most likely to become infected and break down, forming a retro-pharyngeal abscess.

Should the surgeon be dealing with a peri-tonsillar abscess in the course of a suppuration of the middle-ear, particularly if the latter is acute, he should make a careful investigation of the case in order to exclude any connection with the middle-ear disease. All surgeons should be on the guard when dealing with a chronic suppuration of the tympanic cavity, as we may at any time be dealing with a caries of the antero-inferior wall, or else caries of the carotid canal, which would lead to a retro-pharyngeal abscess, and, should it go untreated, there is risk of a deep cervical formation, finding its

way into the thorax and causing death from mediastinitis and general sepsis.

In the course of an acute suppuration, of an acute exacerbation of a chronic suppuration of the tympanic cavity, especially if there has been some delay in opening and draining the mastoid, the signs and symptoms appear of cervical cellulitis in the upper region of the posterior triangle. There is pain, especially on moving the head; torticollis is usually very evident. In the early stages, swelling, with edema, and tenderness on deep pressure over the neck close to the skull appear, and the whole area manifests a tough induration. These inflammatory phenomena tend to spread down the neck, and in some cases have reached as far as the clavicle before the pus close to the skull had got to the surface. Along with the local phenomena we find the usual signs of severe toxemia; this, of course, would lead to surgical interference, incision being made in the upper part of the neck and deepened until pus appears. Should the case be complicated with mastoiditis, a mastoidectomy is done.

The development of a retro-pharyngeal abscess occupies a period of several days, so that, when we see the patient, the swelling has probably gone beyond the original point of infection; sometimes the pus may gravitate so low down that it is not seen through the fauces, and digital exploration alone can locate it. One of the first clinical signs is dysphagia. This varies from difficult deglutition to absolute inability to nourish, being especially marked in infants. Another important sign is respiratory distress, anxious expression, with chin extended, and croupy cough, mouth containing large amount of secretion and resembling that of peri-tonsillar abscess. Dyspnea increases as the pus extends downwards, interfering with respiration. This picture at first glance reminds one of a laryngeal diphtheria. Digital examination will clear up this point and reveal a large, fluctuating tumor. The temperature chart shows one of sepsis, and great depression, almost bordering on extremis, and here we have the unmistakable picture of retro-pharyngeal abscess.

Differential Diagnosis.— Laryngeal diphtheria, laryngitis, aneurism, gumma, malformation or malposition of the cervical vertebra. Digital exploration will clear up any doubt in the surgeon's mind.

Prognosis.—This depends on the etiology. If, as in some cases, the infection has extended from the middle-ear, with necrosis of the

temporal bone and extensive cellulitis and burrowing of pus in the neck, the results are not as favorable as when the purulent foci are limited to the pharyngeal structures, and evacuation is accomplished before spontaneous rupture, with the possibility of aspiration pneumonia, or asphyxia. A fair mortality rate is 5 to 7 per cent. The author knows no special treatment that will influence these glands. In acute retro-pharyngeal abscess formation no life need be sacrificed. Surgical interference, when done early, usually brings about a speedy recovery. If this aid is delayed, the condition, especially in infants, may end fatally. Pus may burrow its way toward the larger vessels of the neck, or travel along the esophagus to the mediastinum, and cause death.

Surgical Treatment and Technic.—Since most of our cases are in infants and early childhood, we are able to dispense with a general anesthetic. Simply envelop the patient in a sheet, lower the head of the operating table, introduce mouth gag, which sometimes causes the patient to become cyanosed and interferes with respiration. Should this occur, it is an indication for immediate removal of the gag, as the back part of the tongue is being crowded upon the abscess, thereby shutting off the air supply. A broad-bladed tongue-depressor is introduced and the operator proceeds, using finger as a guide. The incision is usually from below upwards. A closed scissors is next introduced into the wound and withdrawn open, in order to insure large opening for thorough drainage, the suction being used to control pus and blood.

The finger may be used to good advantage in order to express the pus from the abscess cavity. The patient should be immediately put to bed and remain in recumbent position for more than twenty-four hours and fed liquids, and all other post-operative attention given.

In retro-pharyngeal abscesses of older children and adults, it may be necessary to apply cocain, ethyl chlorid or bromid, or even a general anesthetic, in order to incise the abscess. Some authors advise the use of an aspirating syringe, while others use trochar, blunt director, scissors, etc.

Report of Case.

Baby girl, 21 months of age. Previous history good. Younger brother died two weeks ago from faucial diphtheria. Mother brought patient to clinic, saying the infant had been under treatment for fever for the past three weeks by three different physicians, without result. When the

writer first saw patient she was **in extremis.** Temperature, 103° F.; pulse, 130. The child was very anemic; anxious expression, torticollis, extended jaw, always crying, large quantity of mucus, and, on digital examination, a large, fluctuating tumor was felt, which caused my patient to become cyanosed, seized with a fit of coughing and dyspnea, which was not encouraging. The infant was wrapped in sterile sheet, without anesthetic; mouth-gag introduced; finger used to guide my knife, and abscess opened from below upward,and scissors introduced, closed, and withdrawn open, in order to assure thorough drainage; suction was used to take care of large amount of pus; very small amount of blood seen. After abscess was opened, heart and respiration ceased.

Operation was done in recumbent position, no cyanosis being present at any time during operation, and the small amount of blood present forces the author to believe the cause of death was due to sudden relief of pressure on pneumogastric, which produced, for the moment, some temporary paralysis or disturbance in function. Sometimes a sudden cessation of pressure may produce some such effect on the respiratory center.

Before closing, permit me to offer my sincere thanks to my friend, Dr. E. S. Keitz.

DISCUSSION OF DR. BOEBINGER'S PAPER.

Dr. E. S. Keitz: In the first place, I think Dr. Boebinger ought to be commended for the frank statement of his non-success, which is only natural. I assisted Dr. Boebinger in the operation, and when he decided to write the paper, what he intended to point out was that there was some anatomical condition connected with the retro-pharyngeal abscess which caused this mortality. We find in the textbooks that they say you must prevent the aspiration of the fluid into the lungs, but they seem to pass over the danger. But, in going through the literature, we found that a number of cases have occurred, as in Dr. Boebinger's case, immediately after the knife entered the abscess, the patient died suddenly. One case I remember in a child was exactly as Dr. Boebinger's paper stated. The abscess had been opened and the child died suddenly. Now, in one of the medical science monthlies, edited by Wood, there is another case, in which the author gives no reference, but says the patient died suddenly, and said death was presumably due to reflex symptoms. This, to my mind, means nothing; it seems to be simply a verbal camouflage and means nothing. The question is, is it due to the presence of vital structures around the retro-pharyngeal abscess, which is the danger point. We find in peri-tonsillar abscess just as much toxemia as we do in retro-pharyngeal abscess. In this case no anesthetic was given, and it could not be blamed. The patient was perfectly well in the morning. The patient died after operation was over and abscess was opened and mouth-gag removed. There was nothing we could do to bring her to life. It was so sudden—more sudden than anything I have ever seen. I am not a sufficient anatomist to say what has caused it, but I believe it is due to some injury or removal of pressure on the pneumogastric nerve.

Dr. Wolf: Dr. Boebinger's remarks have brought a suggestion to my mind. Dr. Holt opens the abscess with the finger nail, which he says he has done in several cases. Further, he protects the end of the scalpel with a piece of adhesive plaster, that will prevent the knife from extend-

ing more than a quarter of an inch. He insists upon opening these abscesses.

Dr. Homer Dupuy: I have reported before this Society four cases of retro-pharyngeal abscess. They were infants. No deaths occurred. I would emphasize that as there are two retro-pharyngeal spaces—one on each side of the median line of the posterior pharyngeal wall—the infection usually occurs in the lymphatic glands of one of these spaces. There is usually a swelling, more prominent on the side of the first infected space. The fibrous septum separating the right and left spaces is frequently broken down by the pus which invades the other space. While swelling appears in the median line of the pharynx, it is unquestionably more prominent on the first infected side. This greater prominence is the point of selection for incision. There is already too much dyspnea to justify a general anesthetic. If the incision does not prevent a re-accumulation, remember the pathology is broken-down lymphatic glands. Reopening the line of incision with Mayo scissors, and then **gentle** curettage is indicated. Differentiating this affection from primary laryngeal diphtheria, which it simulates, can be done through the voice, which, as a rule in diphtheria, is hoarse, or even reduced to aphonia. In the abscess, it is muffled, twangy, the "voix de Canard" described by the French. Of course, seeing and feeling the pharyngeal swelling gives infallible evidence. Dr. Boebinger's handling of the case was the correct manner. The death was due to one of those unforeseeable and well-nigh unpreventable factors which often conspire against the surgeon and physician.

Dr. F. R. Gomila: If Drs. Boebinger and Keitz came to the conclusion that this child died from the sudden relief of pressure on the pneumogastric nerve, would they proceed in the same manner in future abscesses of this character or would they use other methods in getting the pus out? The suction apparatus that I have seen them use certainly will not get all of the pus that comes from the cavity, and could get into the lungs after the patient cried and took a deep inspiration.

Dr. Boebinger (closing discussion): I believe we reviewed the literature very thoroughly and carefully. The condition is essentially one of early childhood, but many authorities claim this condition is seen in adults and the young, as I stated in my paper. I mentioned especially the various ages at which this condition had been seen, especially to avoid criticism after reading the paper. In answer to my chief about not bringing out the differential points, I believe I stated that the voice plus exploration with the finger would clear up retro-pharyngeal abscess; and in answer to our little friend and co-worker, who asked would I, in my future cases, go back with the knife, I believe I would attempt to aspirate before draining the abscess. I do not mean to say that I would simply aspirate and stop there; I would relieve the tension by aspiration, and then I would go along, using my knife. I do not have to guard my knife—I have enough anatomical sense to know how to use my knife, knowing that the base is cartilaginous, and not osseous. Therefore, I would not have it misunderstood that I would aspirate and stop. On the contrary, this would necessitate going back daily and having my patient undergo the same operation.

NEWS AND COMMENT

THE FORTHCOMING MEETING of the American Society of Tropical Medicine offers the following articles as a preliminary program:

Observations Upon the Age, Sex and Color Upon the Prevalence of Malaria, by Dr. C. C. Bass, New Orleans, President.

Pellagra (exact title to be announced later), by Dr. Jos. Goldberger, Surgeon, U. S. P. H. Service, Washington, D. C.

Tropical Resources and Hygiene, by Dr. D. Rivas, University of Pennsylvania, Philadelphia.

Certain Digestive Phenomena Observed in a Case of Sprue, by Dr. Frank Smithies, Chicago.

Observation Upon the Prevalence of Infection With Filaria in Certain Parts of the United States, by Dr. Edward Francis, U. S. P. H. Service, Washington, D. C.

The Use of Quinin in the Prophylaxis and Treatment of Infection With Proteosoma, by Dr. Eugene R. Whitmore, Army Medical School, Washington, D. C.

Experimental Typhoid Carriers, by Dr. K. F. Meyer, San Francisco.

Complement Fixation Test on Sprue, by Dr. Gonzales Martines, San Juan, Porto Rico.

AZALEA WAR HOSPITAL ENLARGES ITS SCOPE.—Azalea, or the United States Hospital No. 16, situated in the mountains of North Carolina, near Asheville, which was designed primarily for the care and treatment of tuberculous soldiers and sailors, has decided to admit gassed soldiers because the climatic conditions have proven to be advantageous in gas cases. The hospital was opened on August 20, with accommodations for 1,000 patients, and orders have been given to add twenty-two buildings, which will provide for an additional 500 patients. The cost to date is about $1,500,000.

REGULATIONS ON THE USE OF PAPER.—The Paper Division of the War Industries Board recently secured data concerning newspapers and periodicals, especially relative to the amount of paper used, and certain definite regulations have been made by this board governing the use of paper, such as (1) against continuing subscriptions after date of expiration; (2) against the sending out of complimentary copies; (3) against sending more than one copy to

advertisers; (4) against sending sample copies to stimulate circulation or advertising, except under special permit; (5) against exchanging with other journals; (6) against selling at an exceptionally low or nominal subscription rate. Suggestions to publishers that they economize if possible "by cutting the number of pages, the curtailment of circulation, or in any other way publishers choose," has been made. Finally, each periodical is requested to reduce the total tonnage to what amounts to about 15 per cent.

St. Patrick's Sanitarium (Lake Charles, La.)—A thirty-five bed addition, to cost $70,000, and nurses' training school in connection with the institution, will be the new features of the St. Patrick's Sanitarium of Lake Charles in the very near future. The training school for nurses has already opened, with a good attendance.

Appeal for Platinum.—An appeal has been sent out to every one, including especially physicians and dentists, by the chief of the Section of Medical Industry of the War Industries Board, that, on account of the scarcity of platinum and the great need of the metal for war purposes, each should go over his instruments and pick out every scrap of platinum that is not absolutely essential for his work. The scraps may be sent to government sources either through accredited representatives of the Red Cross, who will make a canvass for the purpose of collecting the platinum, or through any bank under the supervision of the Federal Reserve Board. Current prices will be paid for the metal.

Pasteur Institute Closes.—Dr. George Gibier Rambaud, head of the Pasteur Institute in New York City for the past eight years, has been ordered to France on active duty and has closed the institute. In closing the institute, Dr. Rambaud stated that it had served its purpose in introducing the Pasteur treatment, which is now available in all the larger hospitals. During the past eight years the institute has cared for 10,020 patients, 8,292 of whom were treated without charge.

Need for General Practitioners in the Army.—The *Journal of the American Medical Association,* in order to correct an impression which has arisen in the minds of some that the specialist, and not the general practitioner, is needed in the army, makes the following statement: "There is need in the Medical Department for every physician who can qualify physically, morally and pro-

fessionally. In many departments of the service the general practitioner is a better man for the work than the specialist.

PERSONALS.—Capt. C. Jeff Miller, M. C. (New Orleans), has been promoted to the rank of major.

Dr. Jerome E. Landry is the new house surgeon at the Charity Hospital, New Orleans, succeeding Dr. Hiram W. Kostmayer, who resigned to accept a position with the Illinois Central Hospital of New Orleans.

Among the doctors of New Orleans who have returned from their vacations and resumed practice are: Drs. Sidney K. Simon, G. F. Cocker, Randolph Lyons, Wm. H. Harris, A. Henriques, A. G. Friedrichs and G. K. Logan.

REMOVALS.—Dr. R. S. Crichlow, from Lecompte, La., to 7037 Lowerline street, New Orleans.

Dr. A. Nelken, from 701 Perring Building to 503 Medical Building.

Drs. Joachim and O'Kelly, from 501 to 616 Macheca Building.

Dr. W. H. Block, from 1221 to 710 Maison Blanche Building.

Dr. H. B. Seebold, from 622 to 420 Macheca Building.

Dr. A. S. Yenni, from 913 to 726 Maison Blanche Building.

Dr. Luther Sexton, from 508 to 407 Medical Building.

Dr. O. C. Cassegrain, from 416 Medical Building to 1105 Maison Blanche Building.

Dr. C. V. Unsworth, from 602 Perrin Building to 212 Medical Building.

Dr. L. J. Dubos, from 416 Medical Building to 1202 Maison Blanche Building.

Dr. J. W. A. Smith, from 107 Camp street to 700 Perrin Building.

Dr. R. E. Stone, from 107 Camp street to 700 Perrin Building.

MARRIED.—On October 5, 1918, Dr. Lucien A. LeDoux, first lieutenant, U. S. A., to Miss Rosina Simino, of Lafayette, La.

DIED.—On September 23, 1918, Dr. John Laurans, prominent physician of this city, aged 55 years.

MORTUARY REPORT OF NEW ORLEANS.

Computed from the Monthly Report of the Board of Health of the City of New Orleans, for September, 1918.

CAUSE.	White.	Colored.	Total.
Typhoid Fever	3	1	4
Intermittent Fever (Malarial Cachexia)	1	1	2
Smallpox	------	------	------
Measles	4	------	4
Scarlet Fever	------	------	------
Whooping Cough	5	2	7
Diphtheria and Croup	------	------	------
Influenza	3	------	3
Cholera Nostras	------	------	------
Pyemia and Septicemia	------	1	1
Tuberculosis	42	27	69
Cancer	24	11	35
Rheumatism and Gout	1	------	1
Diabetes	3	------	3
Alcoholism	1	------	1
Encephalitis and Meningitis	1	1	2
Locomotor Ataxia	1	------	1
Congestion, Hemorrhage and Softening of Brain	27	8	35
Paralysis	5	------	5
Convulsions of Infancy	------	------	------
Other Diseases of Infancy	11	9	20
Tetanus	------	------	------
Other Nervous Diseases	4	------	4
Heart Diseases	36	31	67
Bronchitis	1	2	3
Pneumonia and Broncho-Pneumonia	9	12	21
Other Respiratory Diseases	------	2	2
Ulcer of Stomach	------	2	2
Other Diseases of the Stomach	------	2	2
Diarrhea, Dysentery and Enteritis	16	13	29
Hernia, Intestinal Obstruction	2	2	4
Cirrhosis of Liver	7	4	11
Other Diseases of the Liver	3	------	3
Simple Peritonitis	------	------	------
Appendicitis	5	2	7
Bright's Disease	18	9	27
Other Genito-Urinary Diseases	16	10	26
Puerperal Diseases	4	4	8
Senile Debility	4	------	4
Suicide	4	------	4
Injuries	24	18	42
All Other Causes	27	23	50
TOTAL	312	197	509

Still-born Children—White, 20; colored, 26; total, 46.

Population of City (estimated)—White, 276,000; colored, 102,000; total, 378,000.

Death rate per 1000 per annum for Month—White, 13.37; colored, 22.73; total, 15.91. Non-residents excluded, 13.62.

METEOROLOGIC SUMMARY (U. S. Weather Bureau).

Mean atmospheric pressure 30.00
Mean temperature 77.00
Total precipitation .....4.82 inches
Prevailing direction of wind, ...northeast